

WHAT IS CLAIMED IS:

1. A lancing device, comprising:

a main housing having an internal surface enclosing a portion of a lancing mechanism, the lancing mechanism including a lancet holder attached to a shaft and a drive spring surrounding a portion of the shaft, the drive spring being located between the lancet holder and the internal surface, the lancing mechanism being adapted to move between a resting position, a cocking position, and a puncture position; and

10 a movable housing adjacent the main housing, the movable housing being adapted to move from a resting position to a cocking position, the moveable housing having an internal surface enclosing a portion of the shaft of the lancing mechanism, the enclosed portion of the shaft having a retainer and a secondary spring surrounding at least a section of the shaft, the secondary spring being located between the retainer and the internal surface of the movable housing,

15 wherein the secondary spring is adapted to move the movable housing from the cocking position to the resting position, the secondary spring being further adapted to move the lancing mechanism from the puncture position to the resting position.

20 2. The lancing device of claim 1, wherein the secondary spring has a spring constant less than the spring constant of the drive spring.

25 3. The lancing device of claim 1, wherein the drive spring is not attached to the lancet holder or the internal surface of the main housing.

4. The lancing device of claim 1, wherein the secondary spring is not attached to the retainer of the shaft or the internal surface of the movable housing.

5. The lancing device of claim 1, wherein neither the drive spring nor the secondary spring are attached to any component of the lancing mechanism.

5 6. The lancing device of claim 1, wherein the secondary spring surrounds the entirety of the portion of the shaft enclosed within the movable housing.

10 7. A method for damping a lancet, comprising the acts of:
providing a lancing device including

15 (i) a main housing having an internal surface enclosing a portion of a lancing mechanism, the lancing mechanism including a lancet holder attached to a shaft and a drive spring surrounding a portion of the shaft, the drive spring being located between the lancet holder and the internal surface, the lancing mechanism being adapted to move between a resting position, a cocking position, and a puncture position; and

20 (ii) a movable housing adjacent the main housing, the movable housing being adapted to move from a resting position to a cocking position, the moveable housing having an internal surface enclosing a portion of the shaft of the lancing mechanism, the enclosed portion of the shaft having a retainer and a secondary spring surrounding at least a portion of the shaft, the secondary spring being located between the retainer and the internal surface of the movable housing;

25 compressing the drive spring and the secondary spring by moving the movable housing away from the main housing to the cocking position;
decompressing the secondary spring to move the movable housing from the cocking position to the resting position, adjacent the main housing;
actuating the drive spring to cause the lancet holder to move from the cocking position to the puncture position;

30 recompressing the secondary spring as the lancet holder moves from the cocking position to the puncture position; and

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decompressing the secondary spring to move the lancet holder from the puncture position to the resting position.

8. The method of claim 7 further comprising the act of adjusting the
5 spring ratio between the drive spring and the secondary spring to adjust
a force applied to the lancet holder as it moves from the cocking
position to the puncture position.

9. The method of claim 7, wherein the drive spring is not attached to the
10 lancet holder or the internal surface of the main housing.

10. The method of claim 7, wherein the secondary spring is not attached to
the retainer of the shaft or the internal surface of the movable housing.

15 11. The method of claim 7, wherein neither the drive spring nor the
secondary spring are attached to any component of the lancing
mechanism.

12. The method of claim 7, wherein the secondary spring has a spring
20 constant less than the spring constant of the drive spring.

13. The method of claim 7 further comprising the act of piercing the skin
of a test subject with a lancet received by the lancet holder as the lancet
holder moves from the cocking position to the puncture position.